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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,852

04/16/2004

Robert L. Jones

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DIGIMARC CORPORATION  
9405 SW GEMINI DRIVE  
BEAVERTON, OR 97008

EXAMINER

LABAZE, EDWYN

ART UNIT

PAPER NUMBER

2876

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/825,852	<b>Applicant(s)</b> JONES ET AL.	
	<b>Examiner</b> EDWYN LABAZE	<b>Art Unit</b> 2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Receipt is acknowledged of amendments filed on 11/7/2005.
2. Claims 1-26 {including new claims 21-26} are presented for examination.

### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-2 and 6-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamir (U.S. 5,568,555) in view of Lloyd (U.S. 5,508,826).

Re claims 1, 11 and 14: Shamir discloses multi-color information encoding system, which includes a printable layer [herein interpreted as the top surface 42 of fig. # 3; see col.6, lines 50+]; a computer readable data storage element [herein interpreted as the microlabel 40 and described as being enable into the matrix] formed on the printable layer 42, the computer readable data storage element comprising a plurality of pixels [herein formed a matrix as shown in figs. # 1, 5 & 7], wherein each pixel (i.e. 16, 18, 20, 22) has one of a predetermined plurality of colors (col.6, lines 32-67; col.7, lines 35-48); a computer readable calibration element [herein as broadly interpreted as the reference dots 14/122 to provide standardized colors and intensities and perform calibration procedures; as shown in figs. # 1 & 7] formed on the printable layer, the calibration element comprising a plurality of pixels and the calibration element including information enabling a determination of the pixel size in the computer readable data storage

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element {hereafter referred as the matrix 40} and also a determination of at least a portion of the predetermined plurality of colors (col.8, lines 16-42). Shamir teaches a system and method, further comprising printing a first plurality of pixels to a first location on a document, each pixel having a pixel intensity, each pixel intensity associated with a respective piece of data (col.2, lines 48+; col.19, lines 34+); printing a second plurality of pixels to second location on the document, the second plurality of pixels comprising at least one pixel associated with each possible pixel intensity (see fig. # 5; col.4, lines 15-67; col.7, lines 35+); printing a third plurality of pixels to a third location on the document, the third plurality of pixels comprising a pair of pixels spaced apart and capable of being scanned by a scanner (col.26; lines 33-67; col.27, lines 1-31); and printing a fourth plurality of pixels to a fourth location on the document, the fourth plurality of pixels spaced a predetermined distance from the second and third pluralities of pixels, the fourth plurality of pixels serving to reference the locations of the second and third pluralities of pixels (col.19, lines 1+).

Shamir fails to specifically teach/suggest that the storage element includes a plurality of pixels that have been selectively darkened or whitened relative to the calibration element encode data.

Lloyd et al. discloses method and apparatus for calibrated digital printing using a four by four transformation matrix, which includes storage element {herein memory 223} includes a plurality of pixels that have been selectively darkened or whitened relative to the calibration element encode data (col.5, lines 40-67; col.6, lines 1-67).

In view of Lloyd et al.'s teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ into the teachings of Shamir through

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the storage element means of calibrating/adjusting the pixels so as to darken or whiten the printing/marking. Furthermore, such modification would enable predetermined selection of colored pixels, wherein by increasing contrast raises the threshold so that more of the original image becomes dark and lowering the contrast lowers the threshold so that more of the original image becomes light, and arrangements of individual and group pixels. Moreover, such modification would have an obvious extension as taught by Shamir.

Re claim 2: Shamir teaches a system and method, wherein the computer readable data storage element and the computer readable calibration elements are printed using the same type of printing (col.6, lines 62-67; col.7, lines 1+).

Re claim 6, 13: Shamir discloses a system and method, wherein the pixels of the computer readable data storage element 40 are spaced apart from each other by one or more predetermined pixel spacing and where the computer readable data calibration element 14/122 further comprises information enabling a determination of at least one of the pixel spacing (col.5, lines 5+; col.7, lines 5-48; col.26, lines 30+).

Re claim 7: Shamir teaches a system and method, wherein at least one of the computer readable data storage elements and the computer readable calibration element is positioned at a predetermined location on the printable layer (as shown in fig. # 3).

Re claim 8: Shamir discloses a system and method, wherein the computer readable calibration element 14/122 is disposed near the computer readable data storage element (as shown in figs. # 4 & 7; col.19, lines 1+).

Re claim 9: Shamir teaches a system and method, wherein the identification document further comprises personalized data printed to the printable layer and wherein the computer

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readable data storage element comprises data associated with at least a portion of the personalized data [herein Shamir teaches a microlabel 40 is shown applied to the top surface of a part 42 so that whatever information is required for the particular part, this information can be encoded into the matrix, and wherein drivers' licenses, pharmaceuticals, medical information cards, jewelry labeling, and packaging labeling can be encoded] (col.5, lines 25+; col.6, lines 50+).

Re claim 10: Shamir discloses a system and method, wherein the computer readable data storage element comprises encrypted data (col.5, lines 32+; col.8, lines 37+; col.20, lines 66+).

Re claim 15: Shamir discloses a system and method, wherein the first plurality of pixels can be interpreted by first scanning at least one of the second, third, and fourth pluralities of pixels (col.27, lines 12-32).

Re claim 16: Shamir teaches a system and method, further comprising printing a reference pixel 14/122 to a fourth location on the document, the reference pixel spaced a predetermined distance from the fourth plurality of pixels and from the first plurality of pixels, the reference pixel helping to define at least one predetermined pixel intensity (col.6, lines 26+; col.45, lines 54+).

5. Claims 3-5 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamir (U.S. 5,568,555) as modified by Lloyd et al. (U.S. 5,508,826) above in claim 1, and further in view of Maurer (U.S. 6,633,321).

The teachings of Shamir as modified by Lloyd et al. have been discussed above. Shamir further teaches at least one of the pixels in the matrix is capable of being changed after printing and the change is at least one of the darkening the pixel and the clearing the pixel [herein each

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pixel is provided with a predetermined intensity or shade of color] (col.8, lines 1+; col.21, lines 15-60).

Shamir as modified by Lloyd et al. fails to teach that the printing is laser engraving.

Maurer teaches method for recording image information, which includes means of printing using laser-engraving 19 (as shown in fig. # 4; col.6, lines 40+).

In view of Maurer's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ in to the teachings of Shamir as modified by Lloyd et al. means of printing using laser engraving so as to that the marking does not become unreadable. Furthermore, such modification is well known in the art and produces line quality with visually discernable and/or undiscernable indicia having some significance, also high resolution text and images on documents (such as photos, text, bar codes, fingerprints, micro-printing, signatures and other graphic elements), which make the document difficult to alter. Moreover, such modification would have been an obvious extension as taught by Shamir as modified by Lloyd et al., therefore an obvious expedient.

6. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shamir (U.S. 5,568,555) as modified by Lloyd et al. (U.S. 5,508,826) above in claim 1, and further in view of Teng (U.S. 6,242,156).

The teachings of Shamir as modified by Lloyd et al. have been discussed above.

Shamir as modified by Lloyd et al. fails to teach a sensitive laminate additive layer for receiving the laser radiation.

Teng discloses lithographic plate having a conformal radiation-sensitive layer on a rough substrate, which includes laser sensitized laminate additive layer 20 for receiving the laser radiation (col.).

In view of Teng's teachings, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to employ in to the teachings of Shamir as modified by Lloyd et al. laser sensitized laminate additive layer for receiving the laser radiation so as to prevent warps or thermal distortions. Furthermore, such modification would enhance sensitivity and provide stability in the instance of wet lithography. Moreover, such modification would have an obvious extension as taught by Shamir as modified by Lloyd et al.

### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wen (U.S. 6,286,761) teaches identification document having embedding information related to the subject.

Trask (U.S. 6,549,303) discloses trapping methods and arrangements for use in printing color images.



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Burkes et al. (US 6,349,185) teaches methods and apparatus for calibrating inline color laser printing.

Field (U.S. 6,808,118) discloses security code verification for identification cards.

Fumio (JP 63185638 A) teaches document output device.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to EDWYN LABAZE whose telephone number is (571) 272-2395. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

el  
Edwyn Labaze  
Patent Examiner  
Art Unit 2876  
January 11, 2006



**THIEN M. LE**  
**PRIMARY EXAMINER**